1.0 INTRODUCTION

This report provides information to the Nuclear Regulatory Commission (NRC) to facilitate preparation of an environmental impact statement in accordance with the provisions of 10 CFR 51 Subpart A, National Environmental Policy Act – Regulations Implementing Section 102 (2) (CFR, 2007a) for the preferred location for a new nuclear power plant on the Calvert Cliffs Nuclear Power Plant (CCNPP) site in Calvert County, Maryland. This report was prepared in accordance with the guidance provided in NUREG-1555, "Environmental Standard Review Plan" (NRC, 1999) and Regulatory Guide 4.2, Revision 2 (NRC, 1976), "Preparation of Environmental Reports for Nuclear Power Stations."

© 2007 UniStar Nuclear Services, LLC. All rights reserved.
COPYRIGHT PROTECTED

1.1 PROPOSED ACTION

Calvert Cliffs 3 Nuclear Project, LLC (Calvert Cliffs 3 Nuclear Project) and UniStar Nuclear Operating Services, LLC (UniStar Nuclear Operating Services) propose to construct and operate a new nuclear power plant to be designated as CCNPP Unit 3 located on 2 portion of existing CCNPP site now owned by Calvert Cliffs 3 Nuclear Project. Federal action resulting in the issuance of a combined license (COL) by the Nuclear Regulatory Commission under 10 CFR 52, Early Site Permits; Standard Design Certification; and Combined Licenses for Nuclear Power Plants (CFR, 2007b) is anticipated. The purpose is to build and operate a baseload nuclear merchant power plant that will generate needed power for Maryland.

© 2007 UniStar Nuclear Services, LLC. All rights reserved.
COPYRIGHT PROTECTED

1.2 PROJECT DESCRIPTION

1.2.1 OWNERSHIP AND APPLICANT

Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC are applying for a combined license for the proposed nuclear power plant. The owner of the proposed project is Calvert Cliffs 3 Nuclear Project, LLC. The operator of the proposed project is UniStar Nuclear Operating Services, LLC. The contact with the NRC during the licensing process is Unistar Nuclear Holdings, LLC.

Calvert Cliffs 3 Nuclear Project, LLC is a limited liability company and is an indirect subsidiary (through UniStar Nuclear Holdings, LLC and UniStar Project Holdings, LLC, which operate as holding companies) of UniStar Nuclear Energy, LLC. UniStar Nuclear Energy is owned jointly by Constellation New Nuclear, LLC and by EDF Development, Inc. Constellation New Nuclear is a member (through Constellation Energy Nuclear Group, LLC) of Constellation Energy Group, Inc. EDF Development is a indirect subsidiary of (through EDF International, SA) of Èlectricitè de France, SA.

The principal offices of Calvert Cliffs 3 Nuclear Project, LLC are located in Baltimore, Maryland. Calvert Cliffs 3 Nuclear Project, LLC is organized under the laws of the United States of Delaware pursuant to the Limited Liability Company Agreement of Calvert Cliffs 3 Nuclear Project , LLC dated March 10, 2008, by UniStar Project Holdings, LLC. Calvert Cliffs 3 Nuclear Project, LLC will be one of the licensees and will own CCNPP Unit 3.

Constellation Energy Group is a holding company for several companies involved with electric and gas energy. Constellation Energy Group, through its subsidiaries, is a major generator of electric power and a leading supplier of competitive electricity, with a power generation portfolio of over 8,700 megawatts. The output of Constellation Energy Group's plants is sold by Constellation Energy Group's commodities business, Constellation Energy Commodities Group, Inc., to many of the nation's leading distribution utilities, energy companies, and cooperatives.

UniStar Nuclear Operating Services, LLC has been formed to be a licensee and to operate U.S. Evolutionary Power Reactor (EPR) nuclear power plants in the United States. The principal offices of UniStar Nuclear Operating Services, LLC are located in Baltimore, Maryland. UniStar Nuclear Operating Services, LLC is organized under the laws of the State of Delaware pursuant to the Limited Liability Company Agreement of UniStar Nuclear Operating Services, LLC dated May 12, 2006, by Constellation Energy UniStar Holdings, LLC, the predeccessor to Unistar-Nuclear Holding. UniStar-Nuclear Operating Services, LLC will be one of the licenses and will operate CCNPP, Unit 3.

UniStar Nuclear Holdings, LLC (Unistar Nuclear Holdings) is responsible to license, jointly develop, construct, and perform start-up testing. UniStar Holdings is a wholly owned subsidiary of Constellation New Nuclear, LLC.

Unistar Nuclear Development Company (UNDC) is responsible to license, jointly develop, construct, and perform start-up testing services. UNDC is a wholly owned subsidiary of Calvert Cliffs 3 Nuclear Project, LLC.

1.2.2 SITE LOCATION

The proposed new nuclear power plant is located south of the existing nuclear power plant on the CCNPP site. The CCNPP site consists of 2,070 acres (838 hectares) in Calvert County, Maryland, on the west bank of Chesapeake Bay, approximately halfway between the mouth of the bay and its headwaters at the Susquehanna River. The site is approximately 40 mi (64 km)

© 2007 UniStar Nuclear Services, LLC. All rights reserved.
COPYRIGHT PROTECTED

southeast of Washington D.C. and 7.5 mi (12 km) north of Solomons Island, Maryland. Figures 1.2-1 and 1.2-2 illustrate the location of the CCNPP site.

1.2.3 REACTOR INFORMATION

The proposed nuclear power plant consists of one pressurized water reactor steam electric system of the AREVA U.S. EPR design. The rated core thermal power is 4,590 MWt. The rated and design gross electrical output is 1,710 MWt. The rated and design net electrical output is approximately 1,562 MWe. Submittal of the U.S. EPR Final Safety Analysis Report for the design certification of the U.S. EPR was completed in December 2007.

1.2.4 COOLING SYSTEM INFORMATION

The two major cooling systems interacting with the environment are the Circulating Water System and the Essential Service Water System. Figure 1.2-3 provides a simplified diagram of these two systems.

1.2.4.1 Circulating Water System

The U.S. EPR uses a Circulating Water Supply System (CWS) to dissipate waste heat rejected from the main condenser and turbine building closed cooling water heat exchangers (via heat exchange with the auxiliary cooling water system) during normal plant operation at full station load. A closed-cycle, wet cooling system is used for CCNPP Unit 3, a departure from the existing CCNPP Units 1 and 2 which have a once-through cooling system. The CCNPP Unit 3 system uses a single mechanical draft cooling tower with plume abatement for heat dissipation. The plume abatement feature will eliminate any visible water vapor plume from the tower. The exhausted steam from the low pressure steam turbine is directed to a surface condenser (i.e., main condenser), where the heat of vaporization is rejected to a closed loop of cooling water. Cooling water from the CWS is also provided to the auxiliary cooling water system. Two 100% capacity auxiliary cooling water system pumps receive cooling water from the CWS and deliver the water to the Closed Cooling Water System (CLCWS) heat exchangers. Heat from the CLCWS System is transferred to the auxiliary cooling water system in the CLCWS System heat exchangers and heated auxiliary cooling water is returned to the CWS. The heated cooling water from the main condenser and auxiliary cooling water system is sent to the spray headers of the cooling tower, where heat content of the cooling water is transferred to the ambient air via evaporative cooling and conduction. After passing through the cooling tower, the cooled water is recirculated back to the main condenser and auxiliary cooling water system to complete the closed cycle cooling water loop. Makeup water from the Chesapeake Bay is required to replace evaporative water losses, drift losses, and blowdown discharge.

Makeup water for the CWS will be taken from the Chesapeake Bay. Two 60-in (152-cm) diameter intake pipes will run approximately 500 ft (152.4 m) south from a shoreline location near the southern edge of the Units 1 and 2 intake structure to a 100 ft (30.48 m) long, and 80 ft (24.38 m) wide unlined forebay. The forebay will be constructed on the shoreline terrace north of the existing pond and barge slip and will have vertical sheet pile sides that extend to Elevation 10 ft (3.05 m) NGVD 29 with an unlined bottom at -22 ft 6 in (-6.86 m) NGVD 29. The CWS pumphouse will be at the northern end of the forebay and the UHS pumphouse will be at the southern end. A rip-rap seawall extending approximately 75 ft (22.9 m) north from the shoreline, east of the pipeline entrance, rip-rap along the shoreline, and a trash rack will be used to protect the pipeline entrance point. The makeup water will be pumped through a common header directly to the cooling tower basin. Blowdown from the cooling tower discharges to a common retention basin to provide retention time for settling of suspended solids and to permit further chemical treatment of the wastewater, if required, prior to discharge to the Chesapeake Bay. The water is pumped through the main condenser, to and

© 2007 UniStar Nuclear Services, LLC. All rights reserved.
COPYRIGHT PROTECTED

from the auxiliary cooling system (all in parallel), and then to the cooling tower to dissipate heat to the atmosphere. Figure 1.2-4 shows the location of the cooling tower for CCNPP Unit 3.

1.2.4.2 Essential Service Water System

The U.S. EPR design has a safety-related Essential Service Water System (ESWS) to provide cooling water to the Component Cooling Water System (CCWS) heat exchangers located in the Safeguards Building and to the cooling jackets of the emergency diesel generators located in the Emergency Power Generating Buildings. The ESWS is used for normal operations, refueling, shutdown/cooldown, anticipated operational events, design basis accidents and severe accidents. The ESWS is a closed-loop system with four safety-related trains and one non-safety-related dedicated (severe accident) train to dissipate design heat loads. Each safety-related train uses one of the four safety-related two-cell mechanical draft cooling towers to dissipate heat during normal conditions, shutdown/cooldown, or design basis accident conditions. The non-safety-related train uses its associated safety-related train ESWS cooling tower (UHS) to dissipate heat under severe accident conditions. The ESWS water is pumped to the CCWS heat exchanger and to the emergency diesel generator heat exchanger for the removal of heat. Each of the four ESWS cooling towers has a dedicated CCWS heat exchanger to maintain separation of the safety-related trains. Heated ESWS water returns through piping to the spray distribution header of the UHS cooling tower. Water exits the spray distribution piping through spray nozzles and falls through the tower fill. Two fans provide upward air flow to remove latent and sensible heat from the water droplets as they fall through the tower fill, rejecting heat from the service water to the atmosphere. The heated air will exit the tower and mix with ambient air, completing the heat rejection process. The cooled water is collected in the tower basin for return to the pump suction for recirculation through the system. Each ESWS cooling tower has a dedicated ESWS pump. An additional pump connected to one ESWS train supplies the severe accident train. A desalinization plant processing water from the Chesapeake Bay will provide normal makeup to the ESWS system.

Makeup water to the ESWS is normally supplied from the plant raw water system. The plant raw water system is supplied from a desalination plant which gets water from the Chesapeake Bay via the CWS. Reject water from the desalination plant is directed into the CCNPP Unit 3 CWS blowdown.

Under post-accident conditions lasting longer than 72 hours, brackish makeup water may be supplied from the safety-related UHS makeup water system. The UHS makeup pumps are housed in a safety-related intake structure at the opposite end of the forebay supplying the CWS.

1.2.5 TRANSMISSION SYSTEM INFORMATION

The existing transmission system consists of two circuits, the North Circuit which connects the CCNPP site to the Waugh Chapel Substation in Anne Arundel County and the South Circuit that connects the CCNPP site to the Mirant Chalk Point Generating Station in Prince George's County. The North Circuit is composed of two separate three-phase 500 kV transmission lines run on a single right-of-way from the CCNPP site, while the South Circuit is a single 500 kV line. The routes of the existing two 500 kV circuits from the CCNPP site to the Waugh Chapel Substation and single 500 kV circuit from the CCNPP site to the Chalk Point Generating Station are presented in Figure 1.2-5.

No additional transmission corridors or other offsite land use would be required to connect the new reactor unit to the existing electrical grid. On the CCNPP site, the following facilities would be constructed:

© 2007 UniStar Nuclear Services, LLC. All rights reserved.
COPYRIGHT PROTECTED

- One new 500 kV substation to transmit power from CCNPP Unit 3
- Two new 500 kV, 3500 MVA circuits, 1.0 mi (1.6 km) in length, on individual towers, connecting the CCNPP Unit 3 substation to the existing CCNPP Units 1 and 2 substation
- Two existing 500 kV, 3,500 MVA circuits that are currently connected to the existing CCNPP Units 1 and 2 substation will be disconnected from the substation and extended one mile (1.6 km) on individual towers, to the CCNPP Unit 3 substation.

Numerous breaker upgrades and associated modifications would also be required at Waugh Chapel, Chalk Point, and other substations. All of the offsite modifications would be implemented within the existing substations. Onsite line routing will be conducted so as to avoid or minimize any impact on the existing Independent Spent Fuel Storage Installation, wetlands, or threatened and endangered species identified in the local area. The layout of the new lines will not have any impact on the existing transmission corridor, and all new line construction will be contained within the CCNPP site property lines. No changes to the offsite corridors are required.

1.2.6 PROPOSED ACTION AND CONSTRAINTS

The proposed action is to construct and operate a new nuclear power unit on the CCNPP site. The NRC 10 CFR 52 (CFR, 2007b) licensing process will be followed to obtain a combined license. At the time of application submittal, there are no constraints on the review process. Numerous other permits and approvals are required from various Federal, State and local agencies as discussed in Section 1.3. These actions will require public meetings and hearings, as required, to obtain the necessary approvals to proceed with construction and operation of the new unit. Constraints may be placed on the proposed action (e.g., limiting groundwater appropriation on site) as the various agency reviews and approvals are processed and issued.

Environmental issues are evaluated using a three-tier standard of significance – SMALL, MODERATE, or LARGE. The definitions of the three significance levels are defined in Footnote 3 of Table B-1 of 10 CFR 51 (CFR, 2007c) as follows:

SMALL: Environmental effects are not detectable or are so minor that they will neither destabilize nor noticeably alter any important attribute of the resource.

MODERATE: Environmental effects are sufficient to alter noticeably, but not to destabilize, important attributes of the resource.

LARGE: Environmental effects are clearly noticeably and are sufficient to destabilize important attributes of the resource.

© 2007 UniStar Nuclear Services, LLC. All rights reserved.
COPYRIGHT PROTECTED

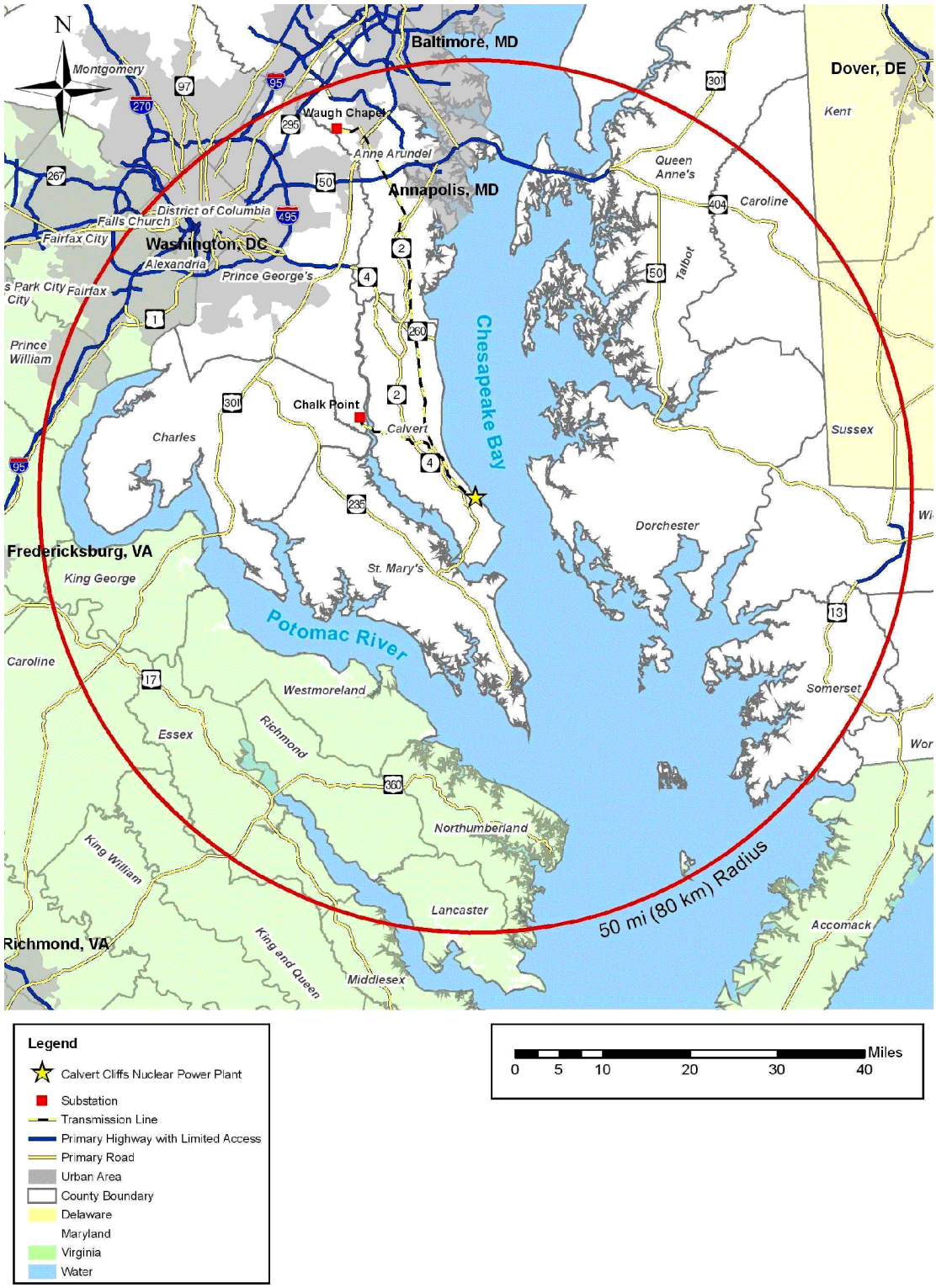
1.2.7 MAJOR ACTIVITY START AND COMPLETION DATES

The following major activities are scheduled:

1.	Order Ultra Heavy Forgings for Reactor Vessel and NSSS Components	April 2006
2.	Submit Environmental Report for CCNPP Unit 3	July 2007
3.	Submit Certificate of Public Convenience and Necessity (CPCN) Application to the State of Maryland	November 2007
4.	Submit Design Certification Application for the U.S. EPR	December 2007
5.	Start Detailed Engineering	Fourth Quarter 2007
6.	Submit Limited Work Authorization Application (as decided by management)	TBD
7.	Submit Remainder of COL Application for CCNPP Unit 3	March 2008
8.	State of Maryland Issues CPCN for CCNPP Unit 3	May 2009
9.	Site Preparation Begins	October 2009
10.	NRC Issues Design Certification for U.S. EPR	June 2011
11.	NRC Issues COL	July 2011
12.	Construction Complete	July 2015
13.	Plant Startup Testing Begins	July 2015
14.	Commercial Operation Begins	December 2015

© 2007 UniStar Nuclear Services, LLC. All rights reserved.
COPYRIGHT PROTECTED

Figure 1.2-1—CCNPP Site 50 mi (80 km) Region

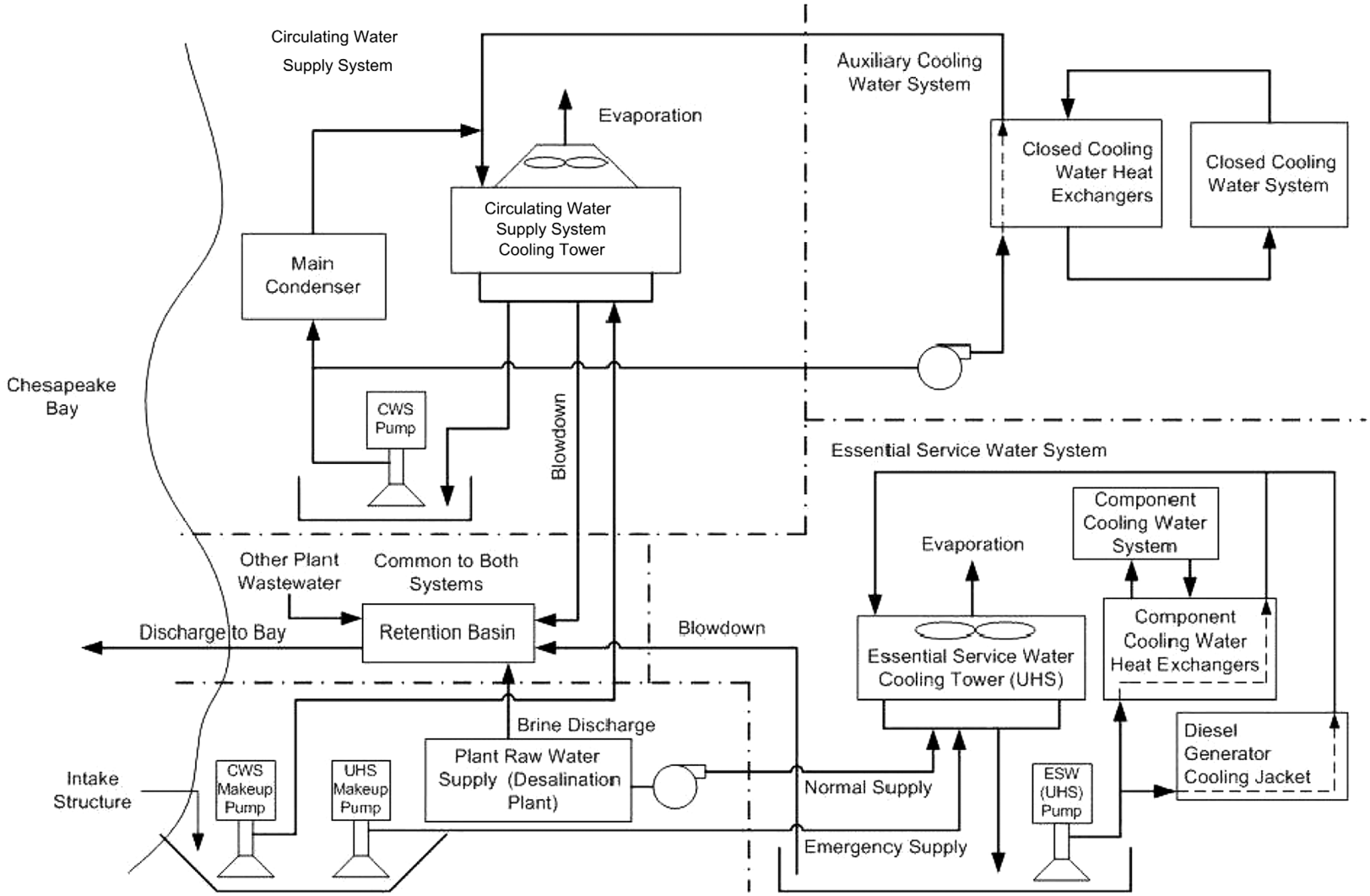


© 2007 UniStar Nuclear Services, LLC. All rights reserved.
COPYRIGHT PROTECTED

Figure 1.2-2—CCNPP Site 8 mi (13 km) Region

© 2007 UniStar Nuclear Services, LLC. All rights reserved.
COPYRIGHT PROTECTED

Figure 1.2-3—General Cooling System Flow Diagram for CCNPP Unit 3

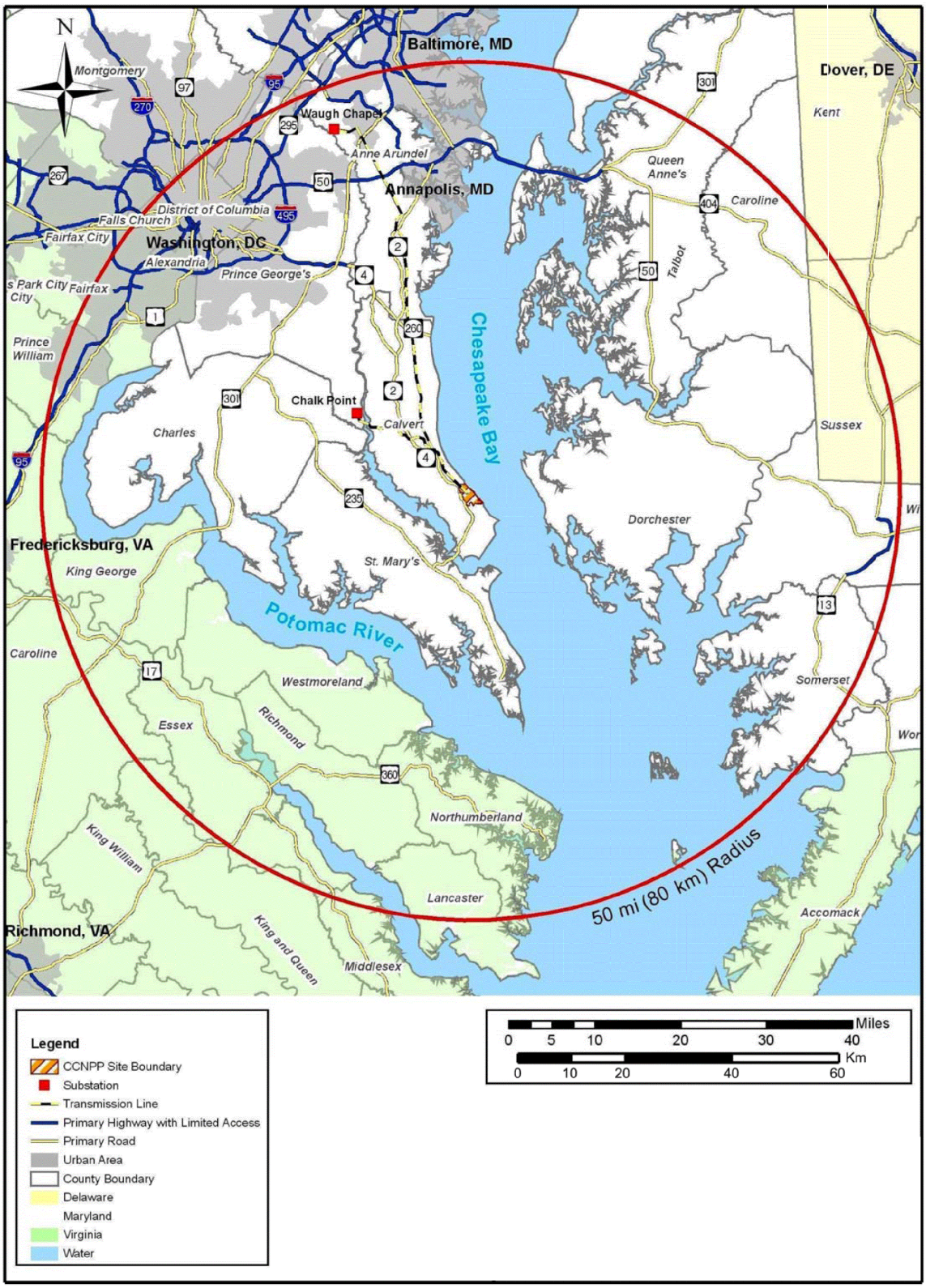


© 2007 UniStar Nuclear Services, LLC. All rights reserved.
COPYRIGHT PROTECTED

Figure 1.2-4—Aerial View of CCNPP Units 1 and 2 with CCNPP Unit 3 Superimposed

© 2007 UniStar Nuclear Services, LLC. All rights reserved.
COPYRIGHT PROTECTED

Figure 1.2-5—CCNPP Site 500 kV Circuit Corridors



© 2007 UniStar Nuclear Services, LLC. All rights reserved.
COPYRIGHT PROTECTED

1.3 STATUS OF REVIEWS, APPROVALS AND CONSULTATIONS

A compilation of environmentally related authorizations required by the proposed project is listed in Table 1.3-1. Also listed in Table 1.3-1 are authorizations that are contingent on project characteristics that have not yet been finalized.

Some of the authorizations listed in Table 1.3-1 are either explicitly or implicitly required in support of an application and issuance of a Certificate of Public Convenience and Necessity (CPCN) by the Maryland Public Service Commission. The Maryland Public Service Commission (PSC) is an independent Maryland State Agency that regulates the construction of large electric generators and high voltage transmission lines as provided by statute and state regulation.The Power Plant Research Program of the Maryland Department of Natural Resources is responsible for managing the State's comprehensive review of the environmental, engineering, socioeconomic, and planning of those projects which require a CPCN application and presents a consolidated state position before the PSC. This comprehensive review has the goal of balancing the trade-offs required to provide reliable electrical power while protecting natural resources.

1.3.1 FEDERAL AGENCIES

1.3.1.1 Nuclear Regulatory Commission (NRC)

The Atomic Energy Act of 1954, as amended, gives the NRC regulatory jurisdiction over the design, construction, operation, and decommissioning of CCNPP Unit 3 specifically with regard to assurance of public health and safety in 10 CFR 52 and 40 (CFR, 2007b; CFR, 2007d), which are applicable to nuclear power plants. The NRC performs continuous inspection of construction, operation and maintenance activities of the facility. The NRC, in accordance with 10 CFR 51 (CFR, 2007a), also assesses the potential environmental impacts of the proposed plant.

NRC establishes standards for protection against radiation hazards arising out of licensed activities. The NRC licenses are issued pursuant to the Atomic Energy Act of 1954, as amended, and the Energy Organization Act of 1974. The regulations apply to all persons who receive, possess, use or transfer licensed materials.

Domestic Licensing of Source Material (10 CFR 40) (CFR, 2007d) establishes the procedures and criteria for the issuance of licenses to receive, possess, use, transfer, or deliver source material.

General Applicability to Domestic Licensing of Byproduct Material (10 CFR 30) (CFR, 2007e) establishes the procedure and criteria for the issuance of licenses to receive, possess, use, transfer, or deliver byproduct material.

Domestic Licensing of Special Nuclear Material (10 CFR 70) (CFR, 2007f) establishes procedures and criteria for the issuance of licenses to receive title to, own, acquire, deliver, receive, possess, use and transfer special nuclear material (e.g., fuel) and establishes and provides for the terms and conditions upon which the Commission issues such licenses.

1.3.1.2 U.S. Environmental Protection Agency (EPA)

The EPA has primary authority relating to compliance with the Clean Air Act (CAA), Clean Water Act (CWA), Safe Drinking Water Act (SDWA), and Resource Conservation and Recovery Act (RCRA). However, EPA Region 3 has authorized Maryland to implement nearly all aspects of permitting, monitoring, and reporting activities relating to these statutes and associated

© 2007 UniStar Nuclear Services, LLC. All rights reserved.
COPYRIGHT PROTECTED

programs. Applicable state requirements, permits, and approvals are described in Section 1.3.2, State Agencies.

Environmental Standards for the Uranium Fuel Cycle (40 CFR 190 Subpart B) (CFR, 2007q) establishes the maximum doses to the body organs resulting from operational normal releases and received by members of the public.

The SDWA provides for protection of public water supply systems and underground sources of drinking water at 40CFR 141-143 (CFR, 2007h). 40 CFR 141.2 defines public water supply systems as systems that provide water for human consumption to at least 25 people or at least 15 connections. Underground sources of drinking water are also protected from contaminated releases and spills by this act. CCNPP Unit 3 is using site groundwater for part of its construction water supply and will employ a desalination plant for its operational water supply; therefore, relevant requirements of the SDWA apply.

The Emergency Planning and Community Right-to-Know Act of 1986 (40 CFR 350 to 372) (CFR, 2007i) establishes the requirements for Federal, State and local governments, Indian Tribes, and industry regarding emergency planning and "Community Right-to-Know" reporting on hazardous and toxic chemicals. The Community Right-to-Know provisions help increase the public's knowledge and access to information on chemicals at individual facilities, their uses, and releases into the environment. States and communities, working with facilities, can use the information to improve chemical safety and protect public health and the environment.

The CWA regulates industrial and stormwater point source discharges under the National Pollutant Discharge Elimination System (NPDES) under 40 CFR 122 (CFR, 2007j). The CWA also regulates power plant cooling water intakes and thermal discharges to minimize environmental impacts under Sections 316(b) and (a), respectively. Construction of CCNPP Unit 3 will require permits for both construction and operation. These permits will be issued by MDE.

Resource Conservation and Recovery Act (RCRA): RCRA regulates all types of solid wastes, including municipal wastes, industrial wastes, and hazardous waste under 49 CFR 107 to 400 (CFR, 2007k). Non-hazardous wastes are regulated under RCRA Subtitle D. Hazardous waste is a waste with properties that make it dangerous or potentially harmful to human health or the environment. The universe of hazardous wastes is large and diverse. Hazardous wastes can be liquids, solids, contained gases, or sludges. They can be the by-products of manufacturing processes or simply discarded commercial products, like cleaning fluids or pesticides. In regulatory terms, a RCRA hazardous waste is a waste that appears on one of the four hazardous wastes lists (F-list, K-list, P-list, or U-list), or exhibits at least one of four characteristics: ignitability, corrosivity, reactivity, or toxicity. Hazardous waste is regulated under the Resource Conservation and Recovery Act (RCRA) Subtitle C.

CCNPP Unit 3 will generate both non-hazardous and hazardous waste. MDE regulates waste management in Maryland.

1.3.1.3 U.S. Department of Transportation (DOT)

DOT regulates transportation of hazardous materials as follows:

- 49 CFR 107, Hazardous Materials Program Procedures, Subpart G: Registration and Fee to DOT as a Person who Offers or Transports Hazardous Materials (CFR, 2007k).
- 49 CFR 171, General Information, Regulations and Definitions (CFR, 2007l).

© 2007 UniStar Nuclear Services, LLC. All rights reserved.
COPYRIGHT PROTECTED

- 49 CFR 173, Shippers – General Requirements for Shipments and Packages, Subpart I: Radioactive Materials (CFR, 2007m).
- 49 CFR 178, Specification for Packagings (CFR, 2007n).

UniStar will arrange for transportation of wastes by licensed and registered transporters.

1.3.1.4 The Noise Control Act of 1972 (42 U.S.C. § 4901 et seq.) (USC, 2007a)

The Noise Control Act transfers the responsibility of noise control to State and local governments. Commercial facilities are required to comply with Federal, State, interstate, and local requirements regarding noise control. Calvert County has a noise control ordinance and the proposed project will meet the criteria.

1.3.1.5 National Historic Preservation Act of 1966 (16 U.S.C. § 470 et seq.) (USC, 2007b)

The National Historic Preservation Act (NHPA) was enacted to protect the nation's cultural resources. The NHPA is supplemented by the Archaeological and Historic Preservation Act. This act directs Federal agencies in recovering and preserving historic and archaeological data that would be lost as the result of construction activities. In Maryland, the Maryland Historic Trust is the agency responsible for carrying out the provisions of the NHPA.

1.3.1.6 Hazardous Materials Transportation Act (49 U.S.C. § 1801 et seq.) (USC, 2007c)

The Hazardous Materials Transportation Act (HMTA) regulates transportation of hazardous material (including radioactive material) in and between States. According to HMTA, States may regulate the transport of hazardous material as long as they are consistent with HMTA or the Department of Transportation (DOT) regulations that are posed in Title 49 CFR 171-177 (CFR, 2007k). Other regulations regarding packaging for transportation of radionuclides are contained in Title 49 CFR 173 (CFR, 2007m), Subpart I. CCNPP Unit 3 will arrange for transport of hazardous and radioactive materials and wastes from suppliers and to disposal facilities on interstate highways.

1.3.1.7 U.S. Army Corps of Engineers (USACE)

The Clean Water Act established a permit program under Section 404. Regulations are at 33 CFR 322-323. (CFR, 2007o,p) to be administered by the USACE to regulate the discharge of dredged or fill material into "the waters of the U.S." The USACE also evaluates wetlands, floodplains, dam inspection and dredging of waterways. The proposed CCNPP Unit 3 will impact tidal and non-tidal wetlands and involve work in navigable waters. Therefore, a Section 404 permit will be required.

1.3.1.8 Occupational Safety and Health Administration (OSHA)

The Occupational Safety and Health Act of 1970 (OSHA) is designed to increase the safety of workers in the workplace. It provides that the Department of Labor is expected to recognize the dangers that may exist in workplaces and establish employee safety and health standards. The identification, classification, and regulations of potential occupational carcinogens are found at 29 CFR 1990 (CFR, 2007q), while the standards pertaining to hazardous materials are listed in 29 CFR 1910 Subpart H (CFR, 2007r). OSHA regulates mitigation requirements and mandates proper training and equipment for workers. UniStar employees and management are subject to the requirements of 29 CFR 1910.

© 2007 UniStar Nuclear Services, LLC. All rights reserved.
COPYRIGHT PROTECTED

1.3.1.9 U.S. Department of Interior (DOI)

The U.S. Fish and Wildlife Services (USFWS) Bureau of DOI is responsible for the protection of threatened and endangered species on land and in fresh waters under the Endangered Species Act (ESA). Consultation is required under Section 7 and regulations are at 50 CFR 402 (CFR, 2007s). The Bald Eagle (*Haliaeetus leucocephalus*) and Northeastern Beach Tiger Beetle (*Cicindela dorsalis*), both federally protected, are present on the CCNPP site. USFWS is also responsible for protecting migratory birds and/or their eggs or nests under the Migratory Bird Treaty Act. UniStar has initiated consultation with USFWS.

1.3.1.10 U.S. Department of Commerce (DOC)

The National Marine Fisheries Service (NMFS) of DOC is responsible for protecting marine mammals and endangered marine life, including anadromous species under the ESA. Consultation is required under Section 7 and regulations are at 50 CFR 402 (CFR, 2007s). In addition to protecting species, NMFS is responsible for protecting essential habitat. There are two fish species and two sea turtle species in the vicinity of the CCNPP site that are afforded special protection under the ESA: Shortnose Sturgeon, *Acipenser brevirostrum*; Atlantic Sturgeon, *Acipenser oxyrhynchus*; Atlantic Loggerhead Turtle, *Caretta caretta*; and Kemp's Ridley Turtle, *Lepidochelys kempii*. The Chesapeake Bay is considered as essential habitat for the Bluefish (*Potatomus saltatrix*). UniStar has initiated consultation with NMFS.

Federal actions which are reasonable likely to affect any land or water use of natural resource of a state's coastal zone are required under Section 307 of the Federal Coastal Zone Management Act (CZMA) of 1972, as amended, to be conducted in a manner that is consistent with a state's Federally approved Coastal Zone Management Program (CZMP). Regulations are at 15 CFR 930 (CFR, 2007t). The National Oceanic and Atmospheric Administration of DOC administers this program at the Federal level and MDE is the CZMP agency in Maryland.

1.3.1.11 Federal Aviation Administration (FAA)

The FAA is responsible for safe air navigation and regulates structures greater than 60.96 m (200 ft). CCNPP Unit 3 will have structures exceeding this height and notification will be required under 14 CFR 77.13 (CFR, 2007u).

1.3.1.12 U.S. Department of Energy (DOE)

CCNPP Unit 3 has entered into a Contract for Disposal of Spent Nuclear Fuel and/or High-level Radioactive Waste with the U.S. Department of Energy (DOE). Under this contract, the DOE will begin the acceptance of Spent Nuclear Fuel (SNF) no earlier than twenty (20) years from the initial discharge date of SNF from CCNPP Unit 3. The subject contract was made and entered into under the authority of the Nuclear Waste Policy Act of 1982.

1.3.2 STATE AGENCIES

The Maryland Public Service Commission (PSC) has jurisdiction over construction of electric generating stations and transmission lines under the Maryland Public Utilities Code Sections 7-207 and 7-208. Regulations are at Code of Maryland Regulations (COMAR) 20.79 (COMAR, 2007a). UniStar will require a Certificate of Public Convenience and Necessity (CPCN) to construct CCNPP Unit 3.

The Maryland Department of Natural Resources (MDNR) provides technical support to the PSC for review and preparation of testimony via the Power Plant Research Program (PPRP). UniStar has held informal discussions with the MDNR/PPRP.

© 2007 UniStar Nuclear Services, LLC. All rights reserved.
COPYRIGHT PROTECTED

MDNR under its Natural Heritage Program implements the National Historic Preservation Act requirements at 50 CFR 402 (CFR, 2007s) and the Maryland Nongame and Endangered Species Conservation Act, Natural Resources Article Section 10-2A.01.

The Maryland Department of the Environment's (MDE) responsibility is to protect and restore the quality of Maryland's air, water, and land resources, while fostering smart growth, economic development, healthy and safe communities, and quality environmental education for the benefit of the environment, public health, and future generations. The MDE consists of several divisions that have responsibility for various permits and environmental programs as described below. The general and specific permits and permit requirements are discussed below by the MDE administration that has responsibility for reviewing and approving the permitting action. It should be noted that air, wetland and water appropriation permits are obtained via the CPCN issued by the PSC.

The Maryland Historic Trust houses the State Historic Preservation Office and administers the NHPA (CFR, 2007v).

Air and Radiation Management Administration

The Air and Radiation Management Administration (ARMA) carries out mandates from the Federal Clean Air Act and administers air pollution monitoring, planning, and control programs to improve and maintain air quality. In this role the ARMA is responsible for processing permit applications for industries that emit pollutants to the air. The ARMA also administers a radiation control program in conformance with federal law.

Portions of Maryland have been designated as ozone nonattainment areas, which means that ozone levels in the ambient air occasionally exceed Federal air quality standards. Therefore, any major new stationary source that will discharge significant amounts of volatile organic compounds (VOCs) or oxides of nitrogen (NOx) must obtain a Non-attainment New Source Review approval prior to construction. For Calvert County, this approval is required if there is a potential to emit more than 25 tons (22.7 MT) per year of VOCs or NOx. To prevent significant deterioration of ambient air quality, the Prevention of Significant Deterioration (PSD) approval seeks to limit the amount of air pollutants released by a new or modified facility proposing to locate in an area that meets National Ambient Air Quality Standards (NAAQS). NAAQS have been established for the following air pollutants: particulate matter (PM10), particulate matter (PM2.5), sulfur oxides, carbon monoxide, ozone, nitrogen dioxide and lead.

Air Quality Permits to Construct are required to ensure than any new, modified, replaced or relocated source of air pollution complies with all air quality requirements (COMAR, 2007b). PSD, if needed, is obtained in conjunction with the Permit to Construct. Air sources with the potential to significantly affect air quality subsequently must obtain an operating permit, which can be a State Permit to Operate (COMAR, 2007b) or a Clean Air Act Title V Operating Permit (COMAR, 2007c). Clean Air Act Operating Permits (under Title V) are required for major sources that have a potential to emit more than10 lbs (4.5 kg) per hour or 100 tons (91 MT) per year for criteria pollutants, 25 tons per year of NO_x or VOCs for Calvert County, MD, or for landfills greater than 96.8 million ft^3 (2.75 million m^3). In addition, major sources also include facilities that have the potential to emit greater than 10 tons (9.1 MT) per year of a single Hazardous Air Pollutant, or 25 tons (22.7 MT) per year of any combination of Hazardous Air Pollutants.

CCNPP Unit 3 will have six standby diesel generators (four Emergency Diesel Generators (EDGs), and two Station Blackout (SBO) diesel generators). The auxiliary boilers will use electric heating, and do not contribute directly to air emissions. The CWS cooling tower will emit particulate

© 2007 UniStar Nuclear Services, LLC. All rights reserved.
COPYRIGHT PROTECTED

matter as PM10. Permitting for these operational sources is part of the CPCN process and emissions will comply with Federal, State, and local emission standards.

Construction phase air emission sources, including the Concrete Batch Plant, will be permitted via the State Permit to Construct and Permit to Operate process and will meet all Federal, State and local emission standards. Measures, such as fugitive dust control, will be employed during construction to minimize emissions.

Generally, mobile sources are not required to obtain an operating permit from ARMA; however, there are provisions for inspection and maintenance of mobile sources in Maryland (COMAR, 2007d).

ARMA also regulates radiation sources not regulated by the NRC such as x-ray machines typically used to examine welds under COMAR 26.12 (COMAR, 2007e). CCCNPP Unit 3 is expected to have such machines on site.

Water Management Administration

Maryland Department of Environment regulates industrial discharges and stormwater via the National Pollutant Discharge Elimination System (NPDES) program, surface and groundwater appropriations, construction of water and sewerage facilities and tidal and non-tidal wetland permitting.

NPDES Permits: Construction of CCNPP Unit 3 will involve grubbing, clearing, grading or excavation of 1 or more acres (0.4 or more ha) of land coverage and must receive a NPDES Construction General Permit (CGP) from MDE (COMAR 26.08.04) (COMAR, 2007f). Various land clearing activities, such as offsite borrow pits for fill material are also been covered under this general permit. CCNPP Unit 3 construction contractors will be clearing approximately 460 acres (186 ha) during the construction phase of the project. UniStar will develop a Sediment and Erosion Control Plan and Stormwater Pollution Prevention Plan (SWPPP) and file a Notice of Intent (NOI) with MDE at least two days prior to the commencement of construction activities. Discharges to Chesapeake Bay, including cooling tower blow down and sanitary treatment effluent, during operation will be regulated under an individual NPDES permit under COMAR 26.08.04.

Water Appropriations: WMA is responsible for reviewing requests for surface and groundwater appropriations (COMAR, 2007g). For an electric generating station, water appropriation authority is obtained via the CPCN. CCNPP Unit 3 will use Chesapeake Bay water for the cooling tower make up and for the desalination plant to meet its freshwater needs for plant water, UHS and potable supplies. As a result will require a surface water appropriation permit.

Water Supply and Sewerage System Permits: MDE issues permits for Major Water Facilities and Major Sewerage Systems under COMAR 26.03.12 (COMAR, 2007h). The CCNPP Unit 3 potable system will serve more than 25 of the same people for more that six months of the year and, therefore, is classified as a public water system requiring a permit. CCNPP Unit 3 will have an on-site sewage treatment system that discharges treated effluent to the Chesapeake Bay.

Section 401 Certification: Under Section 401 of the federal Clean Water Act, states can review and approve, condition, or deny all federal permits or licenses that might result in a discharge to State waters, including wetlands (USC, 2007d). A Section 401 Water Quality Certification confirms compliance with the State water quality standards. Activities that require a Section 401 certification include Section 404 permits issued by the USACE (CFR, 2007t). MDE has a cooperative agreement and joint application process with the USACE relating to Section 404

© 2007 UniStar Nuclear Services, LLC. All rights reserved.
COPYRIGHT PROTECTED

permits and Section 401 certifications. The proposed CCNPP Unit 3 will require both work in both tidal and non-tidal waters and, therefore, both a Section 404 permit and a Section 401 Water Quality Certification.

CZMP: One of the authorizations required for issuance of the COL is a Coastal Zone Management Act (CZMA) consistency determination (15 CFR 930.57) (CFR, 2007t). The State of Maryland's Coastal Zone Management Program has been approved by the U.S. Department of Commerce and is administered by the Maryland Department of the Environment. The Maryland program is a networked program based on existing laws and regulations. The Applicant will include its consistency certification as part of the COLA. MDE will make its CZMA consistency determination based on information supplied by the Applicant and its assessment that the project will be in compliance with all applicable Maryland laws and regulations.

Wetland Permits: WMA typically issues permits for work in non-tidal wetlands, tidal wetlands, and waterways and 100-year floodplains under COMAR 26.23, 26.24 and 26.17 (COMAR, 2007i, j, k), respectively. However, in the case of an electric generating station, these authorizations are obtained from the PSC via the CPCN (COMAR, 2007a).

Waste Management Administration

The Waste Management Administration manages the following relevant programs in Maryland: solid waste, hazardous waste management, recycling, and oil control. CCNPP Unit 3 will require several permits from the Waste Management Administration. Municipal solid wastes during operation will be collected by a contractor and disposed of at a permitted municipal landfill. No separate permits are required. Disposal of sludge from the sewage treatment system will require a Sludge Utilization Permit from MDE under COMAR 26.04.06 (COMAR, 2007l). Disposal of land clearing debris during construction, if chosen as an option, will require a Solid Waste Disposal Facility Permit under COMAR 26.04.07 (COMAR, 2007m). An oil operations permit will be required for storage of fuel for the Emergency Diesel Generators under COMAR 26.10.01.07 (COMAR, 2007n). CCNPP Unit 3 plans to store hazardous waste for less than 90 days before shipment to licensed off-site treatment and disposal facilities. This requires a Hazardous Waste Generator Registration (USEPA Identification Number) which is issued by the Waste Management Administration under COMAR 26.13.03 (COMAR, 2007o). The level of permit and associated monitoring requirements depend on the volume and type of waste generated and whether or not the waste is treated or just stored for offsite disposal. It is anticipated that small to medium volumes of hazardous waste will be stored at the facility for eventual offsite disposal.

UniStar is committed to pollution prevention and waste minimization practices and will incorporate RCRA pollution prevention goals, as identified in 40 CFR 261 (CFR, 2007w). A Pollution Prevention Waste Minimization Plan will be developed to meet the waste minimization criteria of NRC, EPA and state regulations. The Pollution Prevention Waste Minimization Plan will describe how design procedures for operation will minimize (to the extent practicable) the generation of radioactive, mixed, hazardous, and non-hazardous solid waste.

Maryland Historic Trust/ State Historic Preservation Office (MHT/SHPO)

The MHT implements the NHPA in Maryland (CFR, 2007v). The CCNPP site is largely undeveloped and the potential for resources exists. UniStar initiated consultation with the MHT/SHPO in 2006 and has conducted a Phase I Cultural Resources Survey. Four potential archaeological sites were identified based on presence of cultural deposits and four architectural sites are also present in the CCNPP Unit 3 project area. These sites are potentially eligible for listing on the National Register of Historic Places (NRHP). A Phase II study to better

© 2007 UniStar Nuclear Services, LLC. All rights reserved.
COPYRIGHT PROTECTED

define the historical and archaeological significance of the resources is being developed and, if needed, a mitigation plan will be developed by UniStar to recover any significant information from the affected sites.

State Highway Administration (SHA)

The SHA will issue the Highway Access Permit for construction of the new site access road under COMAR 11.04.05 (COMAR, 2007p). UniStar has consulted with the SHA to ensure the Traffic Impact Study and road access plans will meet SHA criteria.

Chesapeake Bay Critical Area Commission (CBCAC):

Under the Critical Area Act (Annotated Code of Maryland Article 8 Subtitle 18) (ACM, 2007), a "Critical Area" is defined as all land within 1,000 ft (304.8 m) of the mean high water line of tidal waters, or the landward edge of tidal wetland and all waters of and lands under the Chesapeake Bay and Atlantic Coastal Bays and tributaries. The Act establishes protection programs and the CBCAC to enable the State and local governments to jointly address the impacts of land development on habitat and aquatic resources. By virtue of its proximity to the Chesapeake Bay, the CCNPP Unit 3 site falls within the CBCA. The location of the CCNPP Unit 3 Power Block and all supporting facilities and structures has been designed to minimize impacts to the CBCA; however, some development in the CBCA is unavoidable. The Intake Structure, Barge Slip and Heavy Haul Road will be located in the Intensively Developed Area adjacent to CCNPP Units 1 and 2. Development in the more highly protected Resource Conservation Area have been minimized and include the eastern edge of the Power Block and stormwater management structures. Because construction in the CBCA is unavoidable, approval from the CBCAC will be required.

Other State Licenses and Registrations

Transport of low level radioactive waste from CCNPP Unit 3 to permitted disposal facilities requires licenses and registrations from the receiving states. Currently, UniStar anticipates low level radioactive wastes to be shipped to disposal facilities in Tennessee and Utah (TDEC, 2007 and UAC, 2006).

1.3.3 LOCAL AGENCIES

Plans for construction and operation of the proposed CCNPP Unit 3 are being communicated to and coordinated with local organizations, in particular the Calvert County Commissioners and Department of Planning and Zoning. Although electric generating stations with a CPCN are exempted from the Calvert County Zoning Ordinance under Section 1-2.02 (Calvert County, 2006a), site grading plans, building permits, and related site development plan approvals will be obtained from Calvert County via their normal process. In addition, permits for demolition and/or relocation of the Camp Conoy structures will be accomplished under a permit from Calvert County under the Calvert County Code, Ordinances and Resolutions Chapter 18, Building Code (Calvert County, 2006b).

© 2007 UniStar Nuclear Services, LLC. All rights reserved.
COPYRIGHT PROTECTED

Table 1.3-1—Federal, State and Local Authorizations

(Page 1 of 5)

Agency	Authority	Requirement	License/ Permit No.	Expiration Date	Activity Covered	Anticipated Application Submittal Date
U.S. Nuclear Regulatory Commission (USNRC)	10 Code of Federal Regulations (CFR) 40	Source Material License	--[a]	--[a]	Possession, use and transfer of source material	March 2008
USNRC	Atomic Energy Act of 1954 (AEA), 10 CFR 51; 10 CFR 52.89	Environmental Impact Statement (EIS)	--[a]	--[a]	Site approval for construction and operation of a nuclear power station as part of an application for a combined license (COL)	July 2007
USNRC	10 CFR 52, Subpart C	COL	--[a]	--[a]	Combined license for a nuclear power station	March 2008
USNRC	10 CFR 70	Special Nuclear Material License	--[a]	--[a]	Possession, delivery, receipt, use, transfer of fuel	March 2008
USNRC	10 CFR 30	By-Product Material License	--[a]	--[a]	Production, transfer, receipt, acquisition, ownership, possession of nuclear byproduct materials	March 2008
USNRC	10 CFR 52.80, 10 CFR 50.10	Limited Work Authorization (LWA) [b]	--[a]	--[a]	Safety-related construction prior to issuance of COL conditionally authorized by NRC	March 2008
Federal Aviation Administration (FAA)	49 United States Code (USC) 44718, 14 CFR 77.13	Construction Notice	--[a]	--[a]	Construction of structures (>200 feet) affecting air navigation	April 2009
US Army Corps of Engineers (USACE)	Federal Water Pollution Act, Sec. 404; 33 CFR 322-323; Rivers and Harbors Act, 33 USC 403, Section 10;33 USC 1344	Individual Permit	--[a]	--[a]	Excavation, dredging, and/or disposal of dredged material in navigable waters; filling of waters of U.S. Needed for construction/modification of the discharge structure, barge slip upgrade, and any filling of waters of U.S.	May 2008
Maryland Department of the Environment (MDE)	Coastal Zone Management Act (CZMA), 16 USC 1451 et seq,15 CFR 930.57	CZMA Consistency Certification and Approval	--[a]	--[a]	Any activity that could affect the state's coastal zone resources.	May 2008
U.S. Fish and Wildlife Services (USFWS)	Endangered Species Act (ESA), Section 7 (16 USC 1531 et seq); 50 CFR 402	Consultation regarding potential to adversely impact protected species (non-marine species) and critical habitats	--[a]	--[a]	Identification of protected species and critical habitats onsite and in the vicinity, assessment of project construction and/or operation impacts, and concurrence on appropriate mitigation.	Ongoing
National Marine Fisheries Service (NMFS)	ESA, Section 7 (16 USC 703 et seq); 50 CFR 402	Consultation regarding potential to adversely impact protected species (marine species) and critical habitats	--[a]	--[a]	Identification of protected species and critical habitats onsite and in the vicinity, assessment of project construction and/or operation impacts, and concurrence on appropriate mitigation.	Ongoing

© 2007 UniStar Nuclear Services, LLC. All rights reserved.
COPYRIGHT PROTECTED

Table 1.3-1—Federal, State and Local Authorizations (Continued)

(Page 2 of 5)

Agency	Authority	Requirement	License/ Permit No.	Expiration Date	Activity Covered	Anticipated Application Submittal Date
NMFS	Magnuson-Stevens Fishery Conservation Management Act, Section 305(b) (2)-(4); 16 USC 1801 et seq	Consultation regarding potential impacts to Essential Fish Habitat (EFH)	--[(a)]	--[(a)]	Identification of EFH in the site vicinity, assessment of project operations impacts, and concurrence on appropriate mitigation.	Ongoing
USFWS	Bald & Golden Eagle Protection Act, 16 USC 668(a); Migratory Bird Permits, 50 CFR 21; Eagle Permits, 50 CFR 22	Eagle Scientific Collecting Permit	MB207511-0	March 31, 2012	Eagle management activities.	Issued March 26, 2009
State Historic Preservation Office (SHPO)/ Maryland Historic Trust	National Historic Preservation Act (NHPA); 16 USC 470 et seq; 36 CFR 800	Cultural Resources Review and Consultation	--[(a)]	--[(a)]	Identification, description, and evaluation of cultural resources on and in the site vicinity with the potential to be impacted by plant construction and/or operations. Concurrence on appropriate mitigation.	Ongoing
Maryland Public Service Commission (PSC)	Annotated Code of MD 7-207 and 7-208; Code of Maryland Regulations (COMAR) 20.79	Certification of Public Convenience and Necessity (CPCN)	--[(a)]	--[(a)]	Site preparation for construction and operation of electric generating station	November 2007
PSC	Annotated Code of MD 7-207 and 7-208; COMAR 20.79	CPCN	--[(a)]	--[(a)]	Construction or modification of transmission lines (Lines to be modified)	November 2007
MDE	Federal Water Pollution Control Act, 33 USC 1341 et seq., COMAR 26.08.02.10	Section 401 Water Quality Certification	--[(a)]	--[(a)]	Compliance with state water quality standards	No separate application, combined with review for 404 (Dredging) permits
Environmental Protection Agency (USAEPA)/MDE	Federal Water Pollution Control Act, Sec 316(a) COMAR 26.08.03.03	Water Quality Impact Assessment	--[(a)]	--[(a)]	Demonstrate thermal discharges to water comply with thermal discharge criteria and are protective of aquatic species	With NPDES permit application
USEPA/MDE	Federal Water Pollution Control Act, Section 316(b) COMAR 26.08.03.05	Best Technology Available (BTA) Demonstration	--[(a)]	--[(a)]	Demonstrate cooling water intake structure represents BTA in minimizing potential for entraiment and impingement of aquatic species.	With NPDES permit application
MDE	Federal Water Pollution Control Act, Section 402;33 USC 1342; COMAR 26.08.04	National Pollution Discharge Elimination System (NPDES) Permit	--[(a)]	--[(a)]	Discharge of industrial wastewater and stormwater during operation	December 2013

© 2007 UniStar Nuclear Services, LLC. All rights reserved.
COPYRIGHT PROTECTED

Table 1.3-1—Federal, State and Local Authorizations (Continued)
(Page 3 of 5)

Agency	Authority	Requirement	License/ Permit No.	Expiration Date	Activity Covered	Anticipated Application Submittal Date
Maryland Department of Natural Resources	COMAR 08.03.08.03	Maryland listed endangered species	--[(a)]	--[(a)]	Removal of Bald Eagle nest within Limit of Disturbance	July 2008
MDE	COMAR 26.08.04.09	General NPDES Permit for Stormwater Associated with Construction Activity	--[(a)]	--[(a)]	Discharge of stormwater during construction	August 2009
PSC/MDE	COMAR 26.24 and 20.79.03.02.B (4)(g)	Maryland Tidal Wetlands License	--[(a)]	--[(a)]	Construction work in tidal wetlands	May 2008
PSC/MDE	COMAR 26.23 and 20.79.03.02.B (4)(g)	Maryland Non-Tidal Wetlands Permit	--[(a)]	--[(a)]	Construction work in non-tidal wetlands	May 2008
MDE	COMAR 26.17.04	Waterway and 100-Year Floodplain Permits	--[(a)]	--[(a)]	Any activity that changes the course, current, or cross-section of a non-tidal stream or body of water, including the 100-year floodplain	November 2007
MDE	COMAR 26.17.01	Erosion and Sediment Control Plan	--[(a)]	--[(a)]	Land clearing, grading, or other earth disturbance (construction)	April 2009
MDE	COMAR 26.17.02	Stormwater Management Plan	--[(a)]	--[(a)]	Land development activity (construction and operation)	April 2009
Chesapeake Bay Critical Area (CBCA) Commission	COMAR 27.02	CBCA Conformance	--[(a)]	--[(a)]	Construction and operation of an electric generating facility in the CBCA	June 2008
PSC/MDE	COMAR 26.17.06; 20.79.03.02.B (3)(e)	Water Appropriation Permit	--[(a)]	--[(a)]	Withdrawal of groundwater for construction and withdrawal of surface water during operation	November 2007
MDE	COMAR 26.03.12	Major Water Facilities Permit	--[(a)]	--[(a)]	Construction of potable water supply system	January 2011
MDE	COMAR 26.03.12	Major Sewerage System Permit	--[(a)]	--[(a)]	Construction of sanitary waste treatment system for operation	January 2011
MDE	COMAR 26.04.06	Sewage Sludge Utilization Permit	--[(a)]	--[(a)]	Disposal of sludge from sewage treatment plant	January 2011
U.S. Environmental Protection Agency (USEPA)/MDE	40 CFR 262.12 COMAR 26.13.03	Hazardous Waste Generator Registration (USEPA Identification Number) (made through MDE)	--[(a)]	--[(a)]	Generation and storage of hazardous waste for $\leq$90 days	January 2009

© 2007 UniStar Nuclear Services, LLC. All rights reserved.
COPYRIGHT PROTECTED

Table 1.3-1—Federal, State and Local Authorizations (Continued)

(Page 4 of 5)

Agency	Authority	Requirement	License/ Permit No.	Expiration Date	Activity Covered	Anticipated Application Submittal Date
MDE	COMAR 26.12.01.01	State Radioactive Materials License	--[a]	--[a]	Possession, use, acquisition, ownership, transfer of radioactive materials not regulated by NRC	January 2015
MDE	COMAR 26.04.07	Solid Waste Disposal Facility Permit	--[a]	--[a]	On-site disposal of land-clearing and construction debris	July 2008
MDE	COMAR 26.10.01.07	Oil Operations Permit	--[a]	--[a]	Storage of oil in above ground storage tanks ≥10,000 gal and/or >1,000 gal of used oil	January 2015
MDE	COMAR 26.11.02	State Air Permit to Construct - Construction Phase	--[a]	--[a]	Construction of construction phase air pollutant emission sources	November 2007
MDE	40 CFR 52.21; COMAR 26.11.01 and 26.11.02	Prevention of Significant Deterioration (PSD) – Construction Phase	--[a]	--[a]	Construction and operation of construction-phase major stationary sources of attainment pollutants.	November 2007
MDE	COMAR 26.11.01, 26.11.02; 26.11.17	New Source Review (NSR) – Construction Phase	--[a]	--[a]	Construction of construction-phase major stationary sources of nonattainment pollutants.	November 2007
MDE	COMAR 26.11.02.13	State Air Permit to Operate	--[a]	--[a]	Operation of construction phase air pollutant emission sources	State issues permit after start-up period as defined in permit to construct
MDE/PSC	COMAR 26.11.02; 20.79.03.02.B(2)(c)	State Air Permit to Construct – Operational Phase	--[a]	--[a]	Construction of operational phase air pollutant emission sources	November 2007
MDE/PSC	40 CFR 52.21; COMAR 26.11.01, 26.11.02 and 20.79.03.02.B (2)(c)	Prevention of Significant Deterioration (PSD) – Operational Phase)	--[a]	--[a]	Construction of major stationary sources of attainment pollutants for operational phase facilities.	November 2007
MDE/PSC	COMAR 26.11.01, 26.11.02, 26.11.17, and 20.79.03.02.B (2)(c)	New Source Review (NSR) – Operational Phase)	--[a]	--[a]	Construction of major stationary sources of attainment pollutants for operational phase facilities.	November 2007
MDE	COMAR 26.11.03; 20.79.03.02.B (2)(c)	Title V Operating Permit	--[a]	--[a]	Operation of existing facility with major stationary sources of air emissions	May 2009
Maryland State Highway Administration (SHA)	Annotated Code of MD 8-625 and COMAR 11.04.05	Highway Access Permit	--[a]	--[a]	Construction of new or modified entrances on state highways	January 2009

© 2007 UniStar Nuclear Services, LLC. All rights reserved.
COPYRIGHT PROTECTED

Table 1.3-1—Federal, State and Local Authorizations (Continued)

(Page 5 of 5)

Agency	Authority	Requirement	License/ Permit No.	Expiration Date	Activity Covered	Anticipated Application Submittal Date
Calvert County Department of Planning and Zoning	Calvert County Code, Ordinances and Resolutions Chapter 18, Building Code of Calvert County	County Grading Permit	--[(a)]	--[(a)]	Clearing and grading of land	April 2009
Calvert County Department of Planning and Zoning	Calvert County Code, Ordinances and Resolutions Chapter 18, Building Construction	County Building Permit, and Related Site Development Plan	--[(a)]	--[(a)]	Construction of buildings and other structures. Demolish certain structures and movement of certain structures at Camp Conoy.	January 2009
Calvert County Department of Planning and Zoning; Inspections and Permits	Calvert County Code, Ordinances and resolutions Chapter 18, Building Construction.	County Use and Occupancy Permit	--[(a)]	--[(a)]	Use and occupancy of buildings	Certificate of Occupancy issued as defined by Building Permit
USEPA	40 CFR 82.162	Ozone-Depleting Substance (ODS) Compliance Certification	--[(a)]	--[(a)]	Recovery and recycling of ODS	2010
US Department of Transportation	49 CFR 107, Subpart G	Certificate of Registration	--[(a)]	--[(a)]	Transportation of hazardous materials	April 2011
Tennessee Department of Environment and Conservation – Division of Radiological Health	TN Department of Environment and Conservation Rule 1200-2-10.32	Tennessee Radioactive License-for Delivery	--[(a)]	--[(a)]	Transportation of radioactive waste into the State of Tennessee (below regulatory limits material)	November 2015
State of Utah Department of Environmental Quality – Division of Radiological Control	Utah Radiation Control Rules R313-26	General Site Access Permit	--[(a)]	--[(a)]	Transportation of radioactive waste into the State of Utah	November 2015

Notes:
(a.) Data not available. Applications for permits will be made before the beginning of construction or during construction, as required.
(b.) As decided by management.

© 2007 UniStar Nuclear Services, LLC. All rights reserved.
COPYRIGHT PROTECTED

1.4 REFERENCES

ACM, 2007. Annotated Code of Maryland, Title 8, Subtitle 18, Chesapeake and Atlantic Coastal Bays Critical Area Protection Program, 2007.

Calvert County, 2006a. Calvert County Zoning Ordinance, Article 1, part 1-2.02, Application of this Ordinance, Exemptions, 2006.

Calvert County, 2006b. Code of Calvert County, Ordinances and Resolutions, Chapter 18, Building Construction, 2006.

CFR, 2007a. Title 10, Code of Federal Regulations, Part 51, Environmental Protection Regulations For Domestic Licensing And Related Regulatory Functions, 2007.

CFR, 2007b. Title 10, Code of Federal Regulations, Part 52, Early Site Permits; Standard Design Certifications; And Combined Licenses For Nuclear Power Plants, 2007.

CFR, 2007c. Title 10, Code of Federal Regulations, Part 51, Environmental Protection Regulations for Domestic Licensing of Nuclear Power Plants, Table B-1, Summary of Findings of NEPA Issues for License Renewal of Nuclear Power Plants, 2007.

CFR, 2007d. Title 15, Code of Federal Regulations, Part 930.57, Federal Consistency With Approved Coastal Management Programs, Consistency Certifications, 2007.

CFR, 2007e. Title 10, Code of Federal Regulations, Part 30, Rules of General Applicability to Domestic Licensing of Byproduct Material, 2007.

CFR, 2007f. Title 10, Code of Federal Regulations, Part 70, Domestic Licensing of Special Nuclear Material, 2007.

CFR, 2007g. Title 40, Code of Federal Regulations, Part 190, Environmental Radiation Protection Standards for Nuclear Power Operations, 2007.

CFR, 2007h. Title 40, Code of Federal Regulations, Parts 141-143, National Primary and Secondary Drinking Water Regulations, 2007.

CFR, 2007i. Title 40, Code of Federal Regulations, The Emergency Planning and Community Right-to-Know Act of 1986, Parts 350 to 372, 2007.

CFR, 2007j. Title 40, Code of Federal Regulations, Part 122, EPA Administered Permit Programs: The National Pollutant Discharge Elimination System, 2007.

CFR, 2007k. Title 49, Code of Federal Regulations, Part 107 through Part 400 Hazardous Materials Sections, 2007.

CFR, 2007l. Title 49, Code of Federal Regulations, Part 171, General Information, Regulations and Definitions, 2007.

CFR, 2007m. Title 49, Code of Federal Regulations, Part 173, Shippers – General Requirements for Shipments and Packagings, 2007.

CFR, 2007n. Title 49, Code of Federal Regulations, Part 177-179, Specifications for Tank Cars, 2007.

© 2007 UniStar Nuclear Services, LLC. All rights reserved.
COPYRIGHT PROTECTED

CFR, 2007o. Title 33, Code of Federal Regulations, Part 322, Permits for Structures or Work in or Affecting Navigable Waters of the United States, 2007.

CFR, 2007p. Title 33, Code of Federal Regulations, Part 322, Permits for Discharges of Dredged or Fill Material into Waters of the United States, 2007.

CFR, 2007q. Title 29, Code of Federal Regulations, Part 1990, Identification, Classification and Regulation of Carcinogens, 2007.

CFR, 2007r. Title 29, Code of Federal Regulations, Part 1910, Subpart H, Occupational Safety and Health Standards, 2007.

CFR, 2007s. Title 50, Code of Federal Regulations, Part 402, Interagency Cooperation – Endangered Species Act of 1973, as amended.

CFR, 2007t. Title 15, Code of Federal Regulations, Part 930, Federal Consistency with Approved Coastal Management Programs, 2007.

CFR, 2007u. Title 14, Code of Federal Regulations, Part 77.13, Construction of Alteration Requiring Notice, 2007.

CFR, 2007v. Title 36, Code of Federal Regulations, Part 800, Protection of Historic Properties, 2007.

CFR, 2007w. Title 40, Code of Federal Regulations, Part 261, Identification and Listing of Hazardous Waste, 2007.

COMAR, 2007a. Title 20, Code of Maryland Regulations, Part 79, Applications concerning the construction or modification of generating stations and overhead transmission of lines by a nonutility generator, 2007.

COMAR, 2007b. Title 26, Code of Maryland Regulations, Part 11.02, Permits, Approvals and Registrations, 2007.

COMAR, 2007c. Title 26, Code of Maryland Regulations, Part 11.03, Permits, Approvals and Registrations, Title V, 2007.

COMAR, 2007d. Title 26, Code of Maryland Regulations, Part 11.20, Mobile Sources, 2007.

COMAR, 2007e. Title 26, Code of Maryland Regulations, Part 12, Radiation Management, 2007.

COMAR, 2007f. Title 26, Code of Maryland Regulations, Part 08.04, Permits, 2007.

COMAR, 2007g. Title 26, Code of Maryland Regulations, Part 17.06, Water Appropriation or Use, 2007.

COMAR, 2007h. Title 26, Code of Maryland Regulations, Part 03.12, Construction Permits and Certain Related Requirements for Major Water Supply and Major Sewerage Systems, 2007.

COMAR, 2007h. Title 26, Code of Maryland Regulations, Part 08.02, water Quality, 2007.

COMAR, 2007i. Title 26, Code of Maryland Regulations, Part 23, Non-tidal Wetlands, 2007.

© 2007 UniStar Nuclear Services, LLC. All rights reserved.
COPYRIGHT PROTECTED

COMAR, 2007j. Title 26, Code of Maryland Regulations, Part 24,Tidal Wetlands, 2007.

COMAR, 2007k. Title 26, Code of Maryland Regulations, Part 17, Water Management, 2007.

COMAR, 2007l. Title 26, Code of Maryland Regulations, Part 04.06, Sewage Sludge Management, 2007

COMAR, 2007m. Title 26, Code of Maryland Regulations, Part 04.07, Solid Waste Management, 2007.

COMAR, 2007n. Title 26, Code of Maryland Regulations, Part 10.01, Oil Pollution, 2007.

COMAR, 2007o. Title 26, Code of Maryland Regulations, Part 13.03, Standards Applicable to Generators of Hazardous Waste, 2007.

COMAR, 2007p. Title 11, Code of Maryland Regulations, Part 04.05, Commercial-Industrial or Subdivision Permits (All Entrance Permits other than Residential), 2007.

NRC, 1976. Preparation of Environmental Reports for Nuclear Power Stations, Regulatory Guide 4.2, Revision 2, Nuclear Regulatory Commission, July 1976.

NRC, 1999. Environmental Standard Review Plan, NUREG-1555, Nuclear Regulatory Commission, October 1999.

TDEC, 2007. Tennessee Department of Environment and Conservation, Chapter 1200-2-10, Licensing and Regulation, 2007.

UAC, 2006. Utah Administrative Code, Rule 313-26, Generator Site Access Permit Requirements for Accessing Utah Radioactive Waste Disposal Facilities, 2006.

USC, 2007a. The Public Health and Welfare, Noise Control, 42 USC 4901, Public Law 92-574, 2007.

USC, 2007b. National Historic Preservation Act of 1966 as Amended Through 1992, 16 USC 470, Public Law, 102-575, 2007.

USC, 2007c. Hazardous Material Transportation Act as Amended by the Hazardous Material Transportation Uniform Safety Act of 1990, 49 USC 1801, Public Law 101-615, 2007.

USC, 2007d. Federal Water Pollution Control Act 33 USC 12S1 et seq. Title IV, 2007.

© 2007 UniStar Nuclear Services, LLC. All rights reserved.
COPYRIGHT PROTECTED